AMENDMENT TO THE CLAIMS

The following is a detailed listing of all claims that are, or were, in the Application.

1-39. (Canceled).

40.   (Currently amended) A ~~computer-implemented~~ method implemented by a data processing apparatus for describing user preferences, the method comprising:

storing a multiple level hierarchical data structure for describing user preferences related to filtering and searching multimedia content, the hierarchical data structure having a tree structure in which a top container ~~that~~ includes ~~two or more~~ first and second parent preference objects at a first level in the tree structure, wherein ~~each of the two or more~~ the first parent preference object[[s]] is a container having a ~~for a corresponding~~ plurality of child preference objects and the second parent preference object is a container having a single child preference object, the single child preference object and each child preference object in the plurality of child preference objects being located below the first level in the tree structure of the hierarchical data structure, ~~each child preference object~~ and representing ~~at least~~ one content description element describing multimedia content; ~~and~~

assigning a ~~respective~~ first preference value to ~~each of the two or more~~ the first parent preference object[[s]] to characterize user preference for the particular combination of the content description elements represented by the ~~corresponding~~ plurality of child preference objects;

assigning a second preference value to the second parent preference object to characterize user preference for the content description element represented by the single child preference object;

storing the first and second preference values in the first and second parent preference objects, respectively, in the hierarchical data structure for describing user preferences related to filtering and searching multimedia content;

receiving content description information including a set of content description

elements for a multimedia content stream, wherein the content description elements represented by the plurality of child preference objects of the first parent preference object form a subset of the set of content description elements for the multimedia content stream; and

using the content description information and the hierarchical data structure with the first preference value to evaluate the multimedia content stream for searching and filtering.

41-42. (Cancelled)

43.   (Previously presented) The method of claim 54, wherein generating the user profile includes designating the hierarchical data structure to be used in searching or filtering multimedia content.

44.   (Previously presented) The method of claim 40, wherein one or more of the content description elements identify a genre, a director or an actor.

45.   (Currently amended) The method of claim 40, wherein assigning a respective the first and second preference values to each of the two or more the first and second parent preference objects, respectively, includes assigning the respective first or second preference value based on a user's access pattern to multimedia content.

46.   (Currently amended) The method of claim 40, wherein assigning a respective the first and second preference values to each of the two or more the first and second parent preference objects, respectively, includes assigning the respective first or second preference value based on user input.

47. (Currently amended) A software product, tangibly embodied in ~~an information carrier~~ a machine readable storage medium, for describing user preferences, the software product comprising instructions to cause data processing apparatus to perform operations comprising:

storing a multiple level hierarchical data structure for describing user preferences related to filtering and searching multimedia content, the hierarchical data structure having a tree structure in which a top container ~~that~~ includes ~~two or more~~ first and second parent preference objects at a first level in the tree structure, wherein ~~each of the two or more~~ the first parent preference object[[s]] is a container having a ~~for a corresponding~~ plurality of child preference objects and the second parent preference object is a container having a single child preference object, the single child preference object and each child preference object in the plurality of child preference objects being located below the first level in the tree structure of the hierarchical data structure~~, each child preference object~~ and representing ~~at least~~ one content description element describing multimedia content; ~~and~~

assigning a ~~respective~~ first preference value to ~~each of the two or more~~ the first parent preference object[[s]] to characterize user preference for the particular combination of the content description elements represented by the ~~corresponding~~ plurality of child preference objects;

assigning a second preference value to the second parent preference object to characterize user preference for the content description element represented by the single child preference object;

storing the first and second preference values in the first and second parent preference objects, respectively, in the hierarchical data structure for describing user preferences related to filtering and searching multimedia content;

receiving content description information including a set of content description elements for a multimedia content stream, wherein the content description elements represented by the plurality of child preference objects of the first parent preference object form a subset of the set of content description elements for the multimedia content stream; and

using the content description information and the hierarchical data structure with the first preference value to evaluate the multimedia content stream for searching and filtering.

48-49. (Cancelled)

50.   (Previously presented) The software product of claim 56, wherein generating the user profile includes designating the hierarchical data structure to be used in searching or filtering multimedia content.

51.   (Previously presented) The software product of claim 47, wherein one or more of the content description elements identify a genre, a director or an actor.

52.   (Currently amended) The software product of claim 47, wherein assigning a respective the first and second preference values to each of the two or more the first and second parent preference objects, respectively, includes assigning the respective first or second preference value based on a user's access pattern to multimedia content.

53.   (Currently amended) The software product of claim 47, wherein assigning a respective the first and second preference values to each of the two or more the first and second parent preference objects, respectively, includes assigning the respective first or second preference value based on user input.

54.   (Currently amended) The method of claim 40, wherein storing the hierarchical data structure includes generating a user profile that includes the hierarchical data structure and specifies the respective first and second preference values for each of the two or more the first and second parent preference objects, respectively.

55.   (Cancelled)

56.   (Currently amended) The software product of claim 47, wherein storing the hierarchical data structure includes generating a user profile that includes the hierarchical data structure and specifies the ~~respective~~ first and second preference value~~s~~ for ~~each of the two or more~~ the first and second parent preference objects, respectively.

57.   (Cancelled)

58.   (Previously presented) A ~~computer-implemented~~ method implemented by a data processing apparatus for processing user preferences, the method comprising:

generating a user profile that includes a hierarchical data structure for describing user preferences related to filtering and searching multimedia content, the hierarchical data structure ~~has~~ having a tree structure that includes a parent preference object and a plurality of child preference objects, wherein the parent preference object is a container for a subset of the child preference objects in the tree structure of the hierarchical data structure, and each child preference object represents ~~at least one~~ a single content description element describing multimedia content;

assigning a first preference value to the parent preference object to characterize user preference for the particular combination of the content description elements represented by the ~~plurality~~ subset of child preference objects; ~~and~~

assigning a respective preference value to each of two or more in the plurality of child preference object~~s~~ to characterize user preference for the single content description element represented by that child preference object;

receiving content description information including a set of content description elements for a multimedia content stream, wherein the content description elements represented by the subset of child preference objects form a subset of the set of content description elements for the multimedia content stream; and

using the content description information and the hierarchical data structure with the first preference value to evaluate the multimedia content stream for searching and filtering.

59. (Currently amended) The ~~computer-implemented~~ method of claim 58, further comprising storing the user profile with the assigned preference values.

60. (New) A software product, tangibly embodied in a machine readable storage medium, for describing user preferences, the software product comprising instructions to cause data processing apparatus to perform operations comprising:

generating a user profile that includes a hierarchical data structure for describing user preferences related to filtering and searching multimedia content, the hierarchical data structure having a tree structure that includes a parent preference object and a plurality of child preference objects, wherein the parent preference object is a container for a subset of the child preference objects in the tree structure of the hierarchical data structure, and each child preference object represents a single content description element describing multimedia content;

assigning a first preference value to the parent preference object to characterize user preference for the particular combination of the content description elements represented by the subset of child preference objects;

assigning a respective preference value to each of two or more in the plurality of child preference objects to characterize user preference for the single content description element represented by that child preference object;

receiving content description information including a set of content description elements for a multimedia content stream, wherein the content description elements represented by the subset of child preference objects form a subset of the set of content description elements for the multimedia content stream; and

using the content description information and the hierarchical data structure with the

first preference value to evaluate the multimedia content stream for searching and filtering.

61.　(New)　The software product of claim 60, further comprising instructions to cause data processing apparatus to perform operations comprising:

storing the user profile with the assigned preference values.